

WHAT IS CLAIMED IS:

1. A method for providing group messages to a plurality of host computers connected over a unicast wide area communication network, comprising the steps of:

5 providing a group messaging server coupled to said network, said server communicating with said plurality of host computers using said unicast network and maintaining a list of message groups, each message group containing at least one host computer;

10 sending, by a first host computer belonging to a first message group, a message to said server via said unicast network, said message containing a payload portion and a portion for identifying said first message group; and transmitting, by said server via said unicast network, said payload portion to selected host computers belonging to said first group.

15 2. The method of claim 1 wherein said selected host computers comprising all host computers belong to said first group except said first host computer.

20 3. The method of claim 1 wherein said message also contains a portion for identifying a second message group, said selected host computers being selected from a set operation of members in said first and said second message groups.

4. The method of claim 1 further comprising the step of creating, by a second host computer, said first message group by sending a first control message to said server via said unicast network.

5. The method of claim 4 further comprising the step of joining, by said first host computer, said first message group by sending via said unicast network a second control message to said server specifying said first message group.

5 6. The method of claim 1 wherein said network is Internet and said server communicates with said plurality of host computers using a session layer ~~protocol~~.

1 7. A method for providing group messages to a plurality of host computers connected over a unicast wide area communication network, comprising the steps of:

10 providing a group messaging server coupled to said network, said server communicating with said plurality of host computers using said unicast network and maintaining a list of message groups, each message group containing at least one host computer;

15 sending, by a plurality of host computers belonging to a first message group, messages to said server via said unicast network, said messages containing a payload portion and a portion for identifying said first message group;

20 aggregating, by said server in a time interval determined in accordance with a predefined criterion, said payload portions of said messages to create an aggregated payload;

forming an aggregated message using said aggregated payload; and transmitting, by said server via said unicast network, said aggregated message to a recipient host computer belonging to said first message group.

25 28. The method of claim 1 wherein said time interval is a fixed period of time.

³₉ The method of claim ¹₇ wherein said time interval corresponds to a time for said server to receive at least one message from each host computer belonging to said first message group.

⁴₁₀ The method of claim ¹₇ further comprising the step of creating, by one of said plurality of host computers, said first message group by sending a first control message to said server via said unicast network.

⁵₁₁ The method of claim ⁴₁₀ further comprising the step of joining, by some of said plurality of host computers, said first message group by sending control messages via said unicast network to said server specifying said first message group.

⁶₁₂ The method of claim ¹₇ wherein said network is Internet and said server communicates with said plurality of host computers using a session layer protocol.

13. A method for providing group messages to a plurality of host computers connected over a unicast wide area communication network, comprising the steps of:

providing a group messaging server coupled to said network, said server communicating with said plurality of host computers using said unicast network and maintaining a list of message groups, each message group containing at least one host computer;

dynamically joining, by a first host computer, message groups on said list by sending a first control message to said server via said unicast network, said first control message specifying a message group desired to be joined by said first host computer; and

dynamically leaving, by said first host computer, message groups on said list by sending a second control message to said server via said unicast

network, said second control message specifying a message group said first host computer desires to leave.

14. The method of claim 13 wherein said first host computer belongs to a first message group, said method further comprising the steps of:

5 sending, by said first host computer, a message to said server via said unicast network, said message containing a payload portion and a portion for identifying said first message group; and

transmitting, by said server via said unicast network, said payload portion to selected host computers belonging to said first group.

10 15. The method of claim 14 wherein said selected host computers comprising all host computers belong to said first group except said first host computer.

16. The method of claim 14 wherein said message also contains a portion for identifying a second message group, said selected host computers
15 being selected from a set operation of members in said first and said second ~~message groups~~.